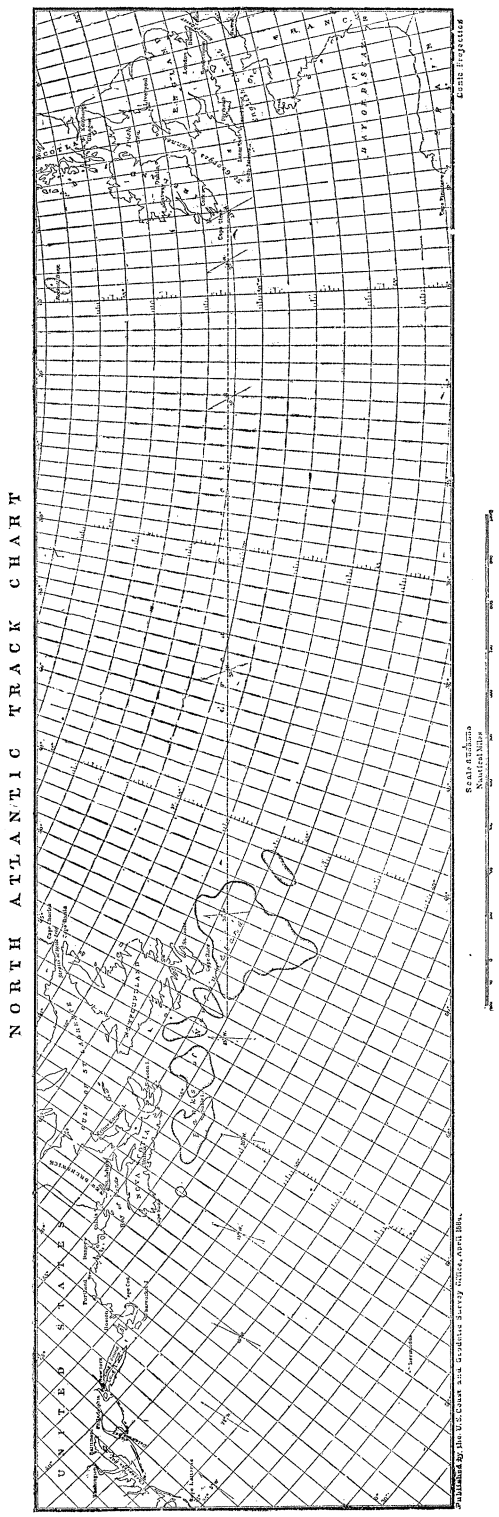

throughout his ocean-voyage: but this advantage is largely fictitious; for, with better knowledge of winds and currents, it is now seldom found advisable for sailing-vessels to follow such a route; and steamers, that can afford to pay little attention to the weather, prefer the great circle, or shortest-line course, to the longer one, so easily determined on the Mercator chart. The difficulty that stands in the way of the general adoption of great-circle sailing is the complexity of the calculation required in laying out the track to be followed. If this difficulty can be overcome by the use of the conic projection, then the owners of vessels desirous of quick passages can hardly fail to demand its introduction.

LETTERS TO THE EDITOR.

**** Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

A colt and its mother's blanket.

MY attention was called recently to the peculiar actions of an orphan colt, which perhaps are worth recording. When the colt was two weeks old, its mother died. Previous to her death, she was covered with a blanket. When it was apparent she could not live, the blanket was thrown over the fence, and the mare removed, and the colt left in the enclosure. The colt was very much exercised at first, ran up and down the yard neighing; but, when it came near the blanket on the fence, it stopped, smelled of it, and seemed pacified. It evidently considered the blanket its mother, and has continued to do so.

If the blanket is removed from the fence, the colt becomes restless, runs about neighing, but is reconciled by the sight of the blanket again.

If one throw the blanket over his back, the colt will follow the bearer all about.

It will graze about in the vicinity of the blanket, but will not go far away, and, when it wishes to rest, will go and lie down by it. F. L. HARVEY.

Fayetteville, Ark., May 20.

The invention of the vertical camera in photography.

In a footnote accompanying an article by Mr. Simon H. Gage, printed in this journal under date of April 11, 1884, on the application of photography to the production of natural-history figures, it was stated, that the only other persons employing a vertical camera in photography, known to the writer, were Dr. Theo. Deecke of the State lunatic-asylum at Utica, N.Y., and Dr. Dannadieu of Lyons, France.

As a matter of fact, the vertical camera, now used for photographing natural-history specimens, etc., is the outcome of a suggestion made in December, 1869, by Professor Baird to Mr. T. W. Smillie, the photographer in the U.S. national museum, Washington, D.C., that the instrument be placed on an incline; the former having observed the difficulty experienced in photographing with the horizontal camera such objects as stone implements, fish, etc. This sugges-

tion was acted upon; and in the following year (1870) Mr. Smillie invented the vertical camera, and with it introduced the use of a side-light, which produced the same effect as the skylight with the horizontal camera. Mr. Smillie also attached to the side of the apparatus an endless screw, whereby the distance could be readily regulated between the lens and the object to be photographed. In 1871, and again in 1875, a camera of this kind was constructed specially for photographing the marine animals taken by the U. S. fish-commission at Wood's Holl, Mass. Its advantages were readily seen by Professor Agassiz, who asked and obtained Professor Baird's permission to construct for his own work a camera on a similar principle. Not less than six thousand negatives have been taken with the vertical camera by Mr. Smillie.

G. BROWN GOODE.

A tailed child.

The *Commercial* of this city for the 17th and 18th inst. gave accounts of a tailed child recently born here. As such cases are of scientific interest, and are very rare, a party of four, including a prominent doctor and the writer, concluded to investigate the case.

We found a female negro-child, eight weeks old, normally formed in all respects, except that slightly to the left of the median line, and about an inch above the lower end of the spinal column, is a fleshy pedunculated protuberance about two and one-half inches long. At the base it measures one and one-quarter inches in circumference. A quarter of an inch from the base it is somewhat larger, and from that it tapers gradually to a small blunt point. It closely resembles a pig's tail in shape, but shows no signs of bone or cartilage. There seems to be a slight mole-like protuberance at the point of attachment. The appendage has grown in length about a quarter of an inch since the birth of the child.

The mother, Lucy Clark, is a quadroon, seventeen years old, and the father, a negro of twenty, — both normally formed.

In Darwin's 'Descent of man,' vol. i. p. 28, he speaks of a similar case, and refers to an article in *Revue des cours scientifiques*, 1867-68, p. 625. A more complete article is that by Dr. Max Bartels, in *Archiv für anthropologie* for 1880. He describes twenty-one cases of persons born with tails, most of them being fleshy protuberances like the one just described.

H. W. EATON.

Louisville, Ky., May 24.

Hibernating mammals.

In *Science*, No. 68, Dr. Merriam desires the evidence upon which my statements concerning the hibernation of certain mammals were based to be well sifted; and rightly, if it is true that my observations upset the well-known (?) laws that govern hibernation. Now, these 'laws' may be in force in the Adirondack region, but they are not in Central New Jersey.

I presume Dr. Merriam will admit that the squirrels and Hesperomys occasionally take a nap during the winter; that sleep is not wholly ignored by them. In my original communication (*Science*, No. 65), I stated very clearly that the Hesperomys slept much more during the winter months than at other times; that its hibernation consisted of such additional slumber, *and nothing more*. So far as the moles are concerned, I have never found evidence of activity in winter equal to that characteristic of the summer months; and specimens kept in captivity hibernated, in the strictest sense of that term, although food was kept within reach all of the time. Of course, star-nosed moles may get out of the reach of freshets; but I have never seen evidence of this, and have often dug down to their burrows immediately the freshet subsided, and found the animals where they were when the waters began to rise. Since the appearance of Dr. Merriam's critical remarks, I have thought the matter over, and believe it probable that these moles may close the openings to their burrows so effectually as to shut out the water from the central nest. This, it must be borne in mind, is a supposition only. In conclusion, I would state that I am not given to adducing facts in proof of general statements. Convinced of their essential correctness, I leave them with others to disprove or confirm by their independent observations. In the case of the 'hibernation' of certain mammals, a comparison of my original communication with the conclusions of my critic will show that there is no very marked difference in our impressions as to the habits of the animals named; and, whether 'extraordinary or improbable,' what I have said of the Hesperomys and star-nosed mole is not simply substantially correct, but absolutely so.

CHAS. C. ABBOTT, M.D.

May 25.

THE ROYAL SOCIETY OF CANADA.

THE third session of this society was held at Ottawa, commencing on the 20th of May, and ending on the 23d. Many members and delegates were present; among the latter, Dr. Persifor Frazer of Philadelphia, who represented the American association for the advancement of science, and Dr. C. Hart Merriam of New York, who represented the American ornithological union.

An address of welcome was presented to the new governor-general of the Dominion, the Marquis of Landsdowne, inviting him to become the honorary president of the society, to which his Excellency returned a suitable reply. The president's address was delivered by the Hon. P. J. O. Chauveau, in French, and the vice-president's by Dr. T. Sterry Hunt, in English.

On the 22d of May the members and friends of the society were invited by the Ottawa field-naturalists' club to participate in an excursion to the King's Mountain, near Chelsea, in the Laurentian country to the north of the city, which proved eminently successful.

The following officers were elected for the ensuing year: president, Dr. T. Sterry Hunt; vice-president, Dr. Daniel Wilson; treasurer, Dr. J. A. Grant (re-elected); honorable secretary, Mr. J. G. Bourinot (re-elected).

The two scientific sections of the society are the third (mathematical, physical, and chemical sciences) and the fourth (geological and